REMARKS/ARGUMENTS

In view of the foregoing amendments and the following remarks, reconsideration of this application is requested. Claims 16-23 are now pending with claims 16 and 22 being independent. Claims 16, 22, and 23 have been amended.

The Examiner in a telephone interview on September 11, 2003 with Applicant's representative Robert D. Marshall requested election of a single disclosed species from Species 1: Figures 5-8, Claims 1-15 and 24; and Species II: Figure 9, Claims 16-21, 23 and generic claim 22. Applicant's representative provisionally elected without traverse to prosecute the invention of Species II, claims 16-21 and 23 as well as generic claim 22. Applicant affirms this election in this Response to Office Action by electing without traverse to prosecute the invention of Species II, claims 16-21 and 23 as well as generic claim 22.

The drawings have been amended in response to the Examiner's objections on page 3 of the Office Action Mailed October 3, 2003. No new matter has been introduced.

Claims 16 and 22 have been amended in response to the Examiner's rejection under 35 U.S.C. § 102(b).

As amended, claim 16 describes an image processing apparatus comprising a digital signal processor for processing a sequence of image frames collectively forming a motion picture. The digital signal processor (DSP) determines a vertical alignment axis for each frame of the sequence from an analysis of the data content of that frame, wherein the analysis comprises identifying perpendicular lines between data objects in the frame. The DSP applies a rotational transform to each frame to map the vertical alignment axis determined by the analysis onto a fixed alignment axis of the frame. The DSP then outputs the sequence of image frames thus transformed to compensate for vertical misalignment of the data content of the frames.

Amended claim 22 describes a method of image processing comprising receiving a sequence of image frames taken by a camera. The method includes determining a vertical alignment axis for each frame of the sequence from an analysis of data content of that frame, the analysis comprising identifying perpendicular lines between data objects in the frame. The image processing method further comprises applying a rotational transform to each frame through an angle determined from mis-alignment between the vertical alignment axis and a fixed alignment axis of the frame. Finally, the method comprises outputting the sequence of image

frames thus transformed to compensate for vertical misalignment of the image content of the frames.

Independent claims 16 and 22 stand rejected under 35 U.S.C. § 102(b) as anticipated by Yoneyama et al. (5,227,889). Applicant requests reconsideration and withdrawal of these rejections for at least the reason that Yoneyama does not describe or suggest determining a vertical alignment axis for each frame of the sequence from an analysis of data content of that frame, the analysis comprising identifying perpendicular lines between data objects in the frame.

Yoneyama, in relevant part, describes in the Abstract, column 4, lines 1-57 and Figure 2, a video camera that compensates for image slant. The amount of slant of the video camera in the vertical direction is detected by a slant detector that detects a horizontal line and vertical line signal level. As shown in Figure 2, the input to slant detector 8 is taken from the output signal of the photoelectric converter 2. The photoelectric converter 2 converts light entering through a camera lens 1 into a video signal. As shown in Figure 7 and described in column 3, lines 59-68, the signal level of horizontal line signals and vertical line signals vary based on the camera body inclination. When the camera body is not inclined, the horizontal line signal level and vertical line signal level are a maximum value, and this maximum value is utilized as the evaluation value for no inclination slant amount. The slant detector hardware shown in Figure 6 processes the horizontal and vertical line signal levels received from the photoelectric converter 2 to compensate for the slant of the image as described in column 4, lines 1-57. Yoneyama does not describe or suggest determining a vertical alignment axis for each frame of the sequence from an analysis of data content of that frame, the analysis comprising identifying perpendicular lines between data objects in the frame. In Yoneyama, image slant compensation is performed by comparing the signal levels of horizontal and vertical lines to maximum values of horizontal and vertical signal levels, respectively, determined when camera body is not inclined. For at least these reasons, Applicant respectfully submits that claims 16 and 22 are patentable over Yoneyama.

Claims 17-21; and 23 depend from independent claims 16 and 22, respectively. Accordingly, Applicant requests reconsideration and withdrawal of the rejections for claims 17-21, and 23 for the reasons discussed above with respect to claims 16 and 22.

In view of these remarks and amendments, Applicant submits that this application is now in condition for allowance and the Examiner's prompt action in accordance therewith is

respectfully requested. The Commissioner is authorized to charge any additional fees and/or credit any overpayment to Deposit Account 20-0668 of Texas Instruments Incorporated.

Respectfully submitted,

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Attachments

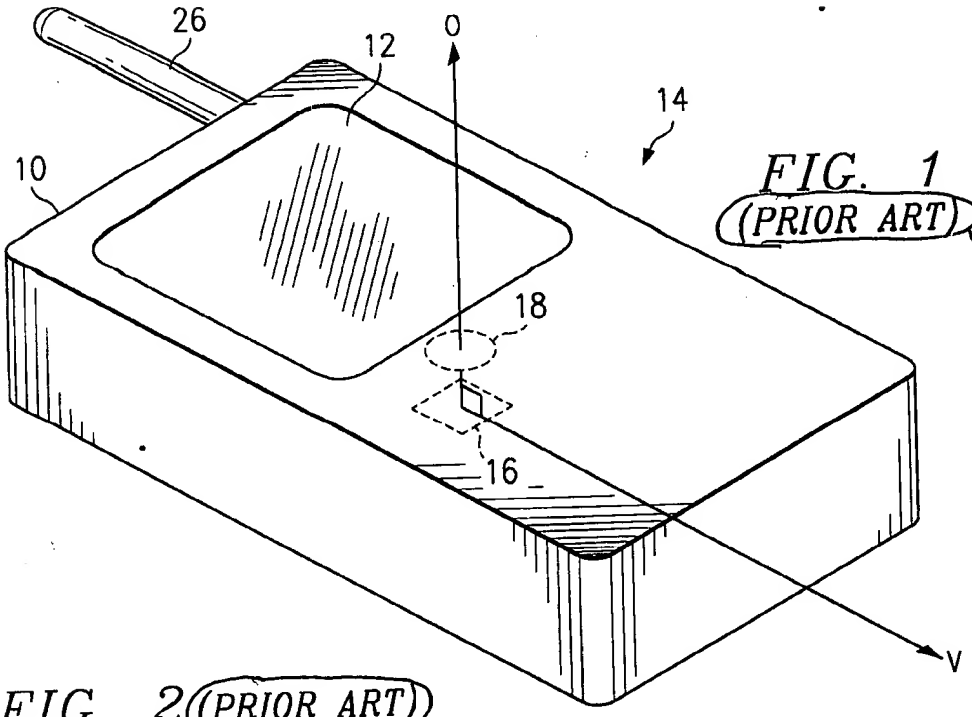

FIG. 1 (PRIOR ART)

"Prior Art" legend added.

FIG. 2 (PRIOR ART)

"Prior Art" legend added

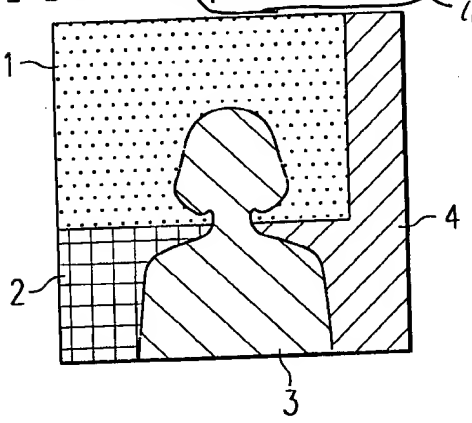

FIG. 3 (PRIOR ART)

"Prior Art" legend added

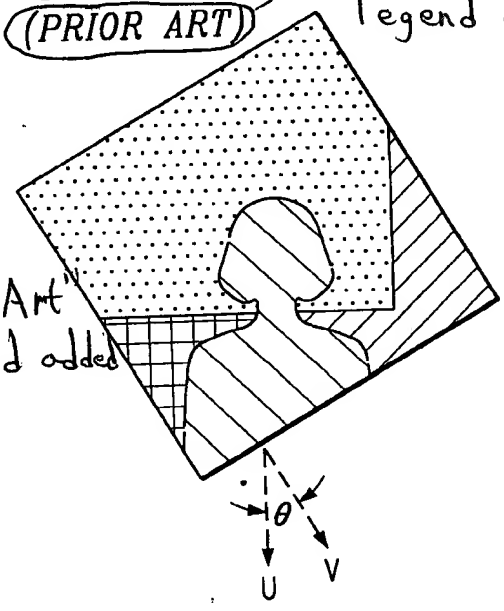

FIG. 4 (PRIOR ART)

"Prior Art" legend added